REMARKS

Claims 1, 10-19, 24, 28, 37, 48, and 58 are amended. Claim 9 is cancelled. Claims 1-8, and 10-60 remain in the application for consideration. In view of the following remarks, Applicant respectfully requests withdrawal of the rejections.

Abstract

The Abstract has been objected to for language and format considerations. Specifically, the Office has indicated that the Abstract is too long and that the language is not clear and concise. Applicant submits herewith a new Abstract thus overcoming the Office's objections.

§103 Rejections

Claims 1-19, 24-28, 30-31, 37-43, 48-49, and 58-60 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,953,722 to Lampert et al. (hereinafter "Lampert"). In addition, claims 20-23, 29, 32-36, 44-47 and 50-57 stand rejected under §103(a) as obvious over Lampert in view of U.S. Patent No. 6,151,601 to Papierniak.

Claim 1 recites a system for determining context. The recited system comprises one or more computer-readable media and a hierarchical tree structure resident on the media. The tree structure is recited to comprise multiple nodes each of which represent geographical divisions of the Earth. This claim has been amended to clarify that the individual nodes comprise ***an entity identification (EID) that is unique to the node, and that the EIDs serve as a basis by which attributes can be assigned to goods or services associated with an individual***

node. Support for this amendment, as well as a discussion of an exemplary implementation, can be found in the specification on page 20, lines 3-25.

Lampert neither discloses nor suggests any such subject matter. Rather, Lampert discloses a system and method for making and using a geographic database. Lampert's geographic database represents a geographic region and is used with a navigation application program. The geographic database includes data entities each of which represents a physical feature in the geographic region. The data entities are separated into parcels each of which contains a grouping of data entities that represent features in the geographic area encompassed within a separate one of a plurality of rectangles which together encompass all the features in the entire geographic region represented by all of the plurality of data entities. Each of the plurality of data entities has a data entity ID. The data entities contained in each of the plurality of parcels define an associated range of data entity ID's associated with their respective parcel such that the range of data entity ID's associated with each parcel does not overlap the range of data entity ID's associated with any another of the plurality of parcels.

Associated with the geographic database is a searchable kd-tree structure whose nodes represent divisions of the geographic region into the rectangles from which the parcels are formed. The kd-tree structure permits spatial searching for a parcel based upon geographic coordinates. The kd-tree also includes data at certain of its nodes that identify the ranges of data entity ID's included in parcels formed from rectangles resulting from the divisions thereby enabling the kd-tree to be used as a binary tree for performing searches using the data entity ID's. Navigation application program functions can search for data by utilizing the kd-tree to

conduct either a spatial search using geographic coordinates or a binary search using a data entity ID.

Nowhere does Lampert disclose or suggest a system in which ***individual nodes comprise an entity identification (EID) that is unique to the node, and that the EIDs serve as a basis by which attributes can be assigned to goods or services associated with an individual node***. Accordingly, this claim is allowable.

Claims 2-8, and 10-23 depend from claim 1 and are allowable as depending from an allowable base claim. These claims are also allowable for their own recited features which, in combination with those recited in claim 1, are neither disclosed nor suggested in the references of record, either singly or in combination with one another.

Claim 9 has been cancelled because aspects of its subject matter have been incorporated into claim 1. As a result, claims 10-19 which were previously dependent from claim 9 have been amended to change their dependencies.

In making out the rejection of claims 20-23 that rely on the combination with Papierniak, the Office argues that Papierniak discloses "business context, wireless/mobile and Internet" and cites to various sections of Papierniak. (See Office Action page 10, paragraph 5). Based on this disclosure, the Office concludes that the subject matter of claims 20-23 would be obvious. Applicant respectfully but strongly disagrees. First, these claims are allowable as depending from an allowable base claim. Papierniak is not seen to add anything of significance to these already-allowable claims. Second, Applicant has reviewed Papierniak and fails to see how this reference is relevant to the subject matter of the rejected claims. Applicant respectfully submits that the Office's §103 is

improper and must be withdrawn for reasons not the least of which is that the rejection does not rise to the level of a prima facie case of obviousness.

Claim 24 recites a system for determining context. The recited system comprises one or more computer-readable media, a first hierarchical tree structure having multiple nodes associated with a first context, and at least one second hierarchical tree structure having multiple nodes associated with a second context. Further, at least one node from the second hierarchical tree structure is recited to be linked with one node on the first hierarchical tree structure by a link that is configured to enable a complete context to be derived from the first and second contexts. The claim has been amended to clarify that ***individual nodes have unique IDs that can serve as a basis by which attributes can be assigned to goods or services.*** Nowhere does Lampert disclose or suggest any such subject matter. Accordingly, this claim is allowable.

Claims 25-36 depend from claim 24 and are allowable as depending from an allowable base claim. These claims are also allowable for their own recited features which, in combination with those recited in claim 24, are neither disclosed nor suggested in the references of record, either singly or in combination with one another.

In addition, the claims rejected over the combination with Papierniak (i.e. claims 29, and 32-36) are allowable for all of the reasons set forth above.

Claim 37 recites a method of determining context and comprises the acts of accessing first and one or more second hierarchical tree structures that are resident on one or more computer-readable media, each tree structure having multiple nodes, the nodes of the first hierarchical tree structure being associated with a first context, the nodes of the one or more second hierarchical tree structures being

associated with a second context. Additionally, the recited acts comprise traversing multiple nodes of at least one of the tree structures to derive a context. In addition, this claim has been amended to recite that ***individual nodes have unique IDs that can serve as a basis by which attributes can be assigned to goods or services.*** Lampert neither discloses nor suggests any such subject matter. Accordingly, this claim is allowable.

Claims 38-47 depend from claim 37 and are allowable as depending from an allowable base claim. These claims are also allowable for their own recited features which, in combination with those recited in claim 37, are neither disclosed nor suggested in the references of record, either singly or in combination with one another.

In addition, the claims rejected over the combination with Papierniak (i.e. claims 44-47) are allowable for all of the reasons set forth above.

Claim 48 is directed to a computer-readable medium having instructions that cause a computing device to perform as recited. This claim has been amended to clarify that the ***individual nodes have unique IDs that can serve as a basis by which attributes can be assigned to goods or services.*** Lampert neither discloses nor suggests any such subject matter. Accordingly, this claim is allowable.

Claims 49-53 depend from claim 48 and are allowable as depending from an allowable base claim. These claims are also allowable for their own recited features which, in combination with those recited in claim 48, are neither disclosed nor suggested in the references of record, either singly or in combination with one another.

In addition, the claims rejected over the combination with Papierniak (i.e. claims 50-53) are allowable for all of the reasons set forth above.

Claim 54 recites a method of locating goods or services and comprises the acts of:

defining a hierarchical tree structure comprising multiple nodes that each can define a ***physical or logical entity***;

- ***associating one or more goods or services*** with one or more of the nodes; and
- traversing one or more of the multiple nodes to ***discover a good or service***

Lampert does not disclose or suggest a node that can define a logical entity. All of Lampert's nodes appear to be associated with a physical entity. This is especially true given the fact that Lampert is concerned with geographical data. Further, neither of the references disclose associating any goods or services with one or more nodes. In making out the rejection, the Office argues, with respect to Papierniak, that it discloses "shopping for purchasing goods and services", and that based on this, it would be obvious to combine the teachings of both references to render the subject matter of claim 54 obvious. This teaching and the Office's rejection falls far short of establishing a prima facie case of obviousness. Accordingly, for at least this reason, claim 54 is allowable.

Claims 55-56 depend from claim 54 and are allowable as depending from an allowable base claim. These claims are also allowable for their own recited features which, in combination with those recited in claim 54, are neither disclosed nor suggested in the references of record, either singly or in combination with one another.

Claim 57 is a computer-readable medium claim and is of comparable scope to claim 54. Hence, for all of the reasons set forth with respect to claim 54 being allowable, this claim is allowable.

Claim 58 recites a method of building context-aware data structures and recites acts comprising receiving input from a source that specifies information pertaining to physical and/or ***logical entities*** and processing the information to define a hierarchical tree structure having a context, the tree structure comprising multiple nodes each of which represent a separate physical or ***logical entity***. As noted above, Lampert neither discloses nor suggests a method that pertains to logical entities as that term is contemplated in this claim. In addition, the claim recites linking at least one of the multiple nodes to a node of another tree structure having a context and multiple nodes that represent physical and/or logical entities, ***individual nodes having unique IDs that can serve as a basis by which attributes can be assigned to goods or services***. As noted above, none of the references cited by the Office disclose or suggest nodes with IDs that can serve as a basis by which attributes can be assigned to goods or services. Accordingly, this claim is allowable.

Claims 59-60 depend from claim 58 and are allowable as depending from an allowable base claim. These claims are also allowable for their own recited features which, in combination with those recited in claim 58, are neither disclosed nor suggested in the references of record, either singly or in combination with one another.

Conclusion

All of the claims are in condition for allowance. Applicant respectfully requests a Notice of Allowability be issued forthwith. If the Office's next anticipated action is to be anything other than issuance of a Notice of Allowability,

Applicant respectfully requests a telephone call for the purpose of scheduling an interview.

Version of the Claims as Amended with Markups

1. (Amended) A system for determining context comprising:

one or more computer-readable media; and

a hierarchical tree structure resident on the media and comprising multiple nodes each of which represent geographical divisions of the Earth, individual nodes comprising an entity identification (EID) that is unique to the node, EIDs serving as a basis by which attributes can be assigned goods or services associated with an individual node.

10. (Amended) The system of claim [9] 1, wherein the nodes comprise a plurality of node attributes and wherein one of the attributes comprises a name attribute.

11. (Amended) The system of claim [9] 1, wherein the nodes comprise a plurality of node attributes and wherein one of the attributes comprises a neutral ground truth name attribute.

12. (Amended) The system of claim [9] 1, wherein the nodes comprise a plurality of node attributes and wherein one of the attributes comprises a geographic attribute.

13. (Amended) The system of claim [9] 1, wherein the nodes comprise a plurality of node attributes and wherein one of the attributes comprises a latitude/longitude attribute.

14. (Amended) The system of claim [9] 1, wherein the nodes comprise a plurality of node attributes and wherein one of the attributes comprises a relative importance index.

15. (Amended) The system of claim [9] 1, wherein the nodes comprise a plurality of node attributes and wherein one of the attributes comprises a contextual parent attribute.

16. (Amended) The system of claim [9] 1, wherein the nodes comprise a plurality of node attributes and wherein one of the attributes comprises a source attribute.

17. (Amended) The system of claim [9] 1, wherein the nodes comprise a plurality of node attributes and wherein one of the attributes comprises a start/end dates attribute.

18. (Amended) The system of claim [9] 1, wherein the nodes comprise a plurality of node attributes and wherein one of the attributes comprises a modification date attribute.

19. (Amended) The system of claim [9] 1, wherein the nodes comprise a plurality of node attributes and wherein one of the attributes comprises a status attribute.

24. (Amended) A system for determining context comprising:

one or more computer-readable media;

a first hierarchical tree structure having multiple nodes associated with a first context;

at least one second hierarchical tree structure having multiple nodes associated with a second context; and

at least one node from the at least one second hierarchical tree structure being linked with one node on the first hierarchical tree structure by a link that is configured to enable a complete context to be derived from the first and second contexts, individual nodes having unique IDs that can serve as a basis by which attributes can be assigned to goods or services.

28. (Amended) The system of claim 24, wherein the first and the at least one second hierarchical tree structures comprise a plurality of attributes, [two] one of which comprising[:

an identification that is unique to a node; and]

information that pertains to the tree with which the node is associated.

37. (Amended) A computer-implemented method of determining context comprising:

accessing first and one or more second hierarchical tree structures that are resident on one or more computer-readable media, each tree structure having multiple nodes, the nodes of the first hierarchical tree structure being associated with a first context, the nodes of the one or more second hierarchical tree structures being associated with a second context; and

traversing multiple nodes of at least one of the tree structures to derive a context, individual nodes having unique IDs that can serve as a basis by which attributes can be assigned to goods or services.

48. (Amended) One or more computer-readable media having computer-readable instructions thereon which, when executed by a computing device, cause the computing device to:

access first and second hierarchical tree structures, each tree structure having multiple nodes, the nodes of the first hierarchical tree structure being

associated with a first location context, the nodes of the second hierarchical tree structure being associated with a second location context, at least one node of the second hierarchical tree structure being linked with a node of the first hierarchical tree structure; and

traverse at least one node of each tree structure to derive a location context, at least one node in a traversal path that leads to a root node of the second hierarchical tree structure being linked with a node of the first hierarchical tree structure, individual nodes having unique IDs that can serve as a basis by which attributes can be assigned to goods or services.

58. (Amended) A computer-implemented method of building context-aware data structures comprising:

receiving input from a source that specifies information pertaining to physical and/or logical entities;

processing the information to define a hierarchical tree structure having a context, the tree structure comprising multiple nodes each of which represent a separate physical or logical entity;

linking at least one of the multiple nodes to a node of another tree structure having a context and multiple nodes that represent physical and/or logical entities, individual nodes having unique IDs that can serve as a basis by which attributes can be assigned to goods or services,

the tree structures being configured for traversal in a manner that enables context to be derived from one or more of the nodes.

Respectfully Submitted,

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By: _____

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